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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,624	06/26/2006	Stephane Moreau	17102/023001	5504

22511 7590 11/10/2008  
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EXAMINER
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COMLEY, ALEXANDER BRYANT

ART UNIT	PAPER NUMBER
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3746

NOTIFICATION DATE	DELIVERY MODE
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11/10/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@oshaliang.com  
buta@oshaliang.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/551,624	<b>Applicant(s)</b> MOREAU ET AL.	
	<b>Examiner</b> ALEXANDER B. COMLEY	<b>Art Unit</b> 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 6-8 & 11-14** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In **Claims 6-8**, it is unclear what is meant, in terms of structure, by the phrase "blind hole". In **Claims 11-14**, the phrase "a so-called active surface" is indefinite, and renders the meaning of this "surface" unclear. Also, in Claim 14, it is unclear what is meant by the phrase "which extends discontinuously", or to which structure this phrase specifically refers.

### ***Claim Rejections - 35 USC § 102***

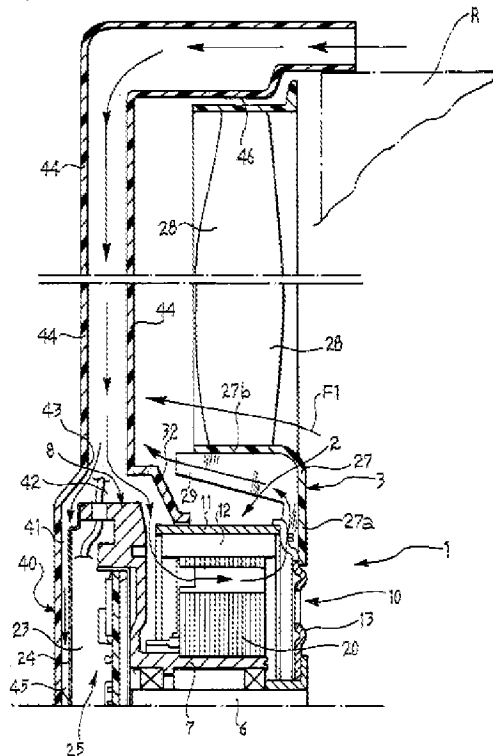
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-18** are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 6,384,494 to Avidano et al. directed to a Motor-Driven Fan, Particularly for A Motor Vehicle Heat Exchanger.

FIG. 3



In regards to Independent **Claim 1**, and with particular reference to Figure 3 shown immediately above, Avidano discloses:

A ventilation device (1) comprising a fan (3) capable of being driven rotationally by an open electric motor (2) which is firmly attached to a support (40) intended for fixing said ventilation device (1), the fan (3) consisting of a plurality of blades (28) which are distributed regularly around a bowl (27) inside which there are arranged internal ribs (29) capable of ventilating said open electric motor (2), characterized in that the support (40) comprises a central part (24, 32) which is connected in a substantially sealed manner to at least one peripheral portion (11) of the open electric motor (2).

As shown in Figure 3 above, Avidano et al. discloses an electric motor-driven fan

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unit for use in motor vehicles. Avidano's fan is designed with a hub and airflow structure that allows the fan's internal blades to cool the motor. In particular, Avidano states "A motor-driven fan includes an electric motor including a rotor and a stator in which the rotor includes an essentially cup-shaped cap which extends at least partly around the stator and has a plurality of lateral exit openings adjacent the bottom wall, and an impeller or fan including a hollow hub from which extends a plurality of main outer fan blades. This hub has a front wall fixed to the back wall of the cap of the rotor and a lateral skirt which surrounds the lateral wall of the cap in a radially spaced relationship. The hub is further provided with inner ventilation blades acting in operation to generate a cooling air stream which passes through the motor." (Abstract) Moreover, Avidano specifically describes the hub structure of Applicant's claimed invention by stating "The fan or rotor 3 of the motor-driven fan comprises a hollow hub 27 (FIG. 1) from which extends a plurality of main outer fan blades 28. The hub 27 has a front wall 27a fixed to the radial projections 15 of the disc element 13 of the cap 10, by means of rivets 29 or the like (FIG. 1). The hub 27 of the fan 3 further has a lateral, essentially cylindrical, skirt 27b which surrounds the side wall or ring 11 of the cap 10 in a radially spaced relation thereto. As is seen in FIG. 1, the hub 27 of the fan 3 is further provided, in the space 30 defined between the ring 11 of the cap 10 and the skirt 27b of the hub of the fan with internal fan blades 29 which extend in respective inclined planes with respect to the radial direction." (Column 2, Lines 36-48) Avidano goes on to disclose a main support body 40 with a central support 32 that serves to seal the open electric motor within the support. In particular, Avidano states "In the embodiment of FIG. 3 a

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rear body 40 is fixed to the stator body 8 on the side opposite the fan 3, which extends in facing and spaced relationship with respect to the cover 24 and which surrounds the periphery of the stator body 8 lying close the annular separator element 32.” (Column 3, Lines 42-45) As can be seen in Figure 3, the annular separator provides a sealed pathway directing the airflow upward and outward towards the rotating fan blades.

5. In regards to dependent **Claims 2-5 & 15**, the annular separator element 32 surrounds and holds the outer periphery of the motor element 2. Moreover, it can be seen in Figure 3 that the inner edge of separator element 32 cooperates with the annular wall of the motor in a continuous, contiguous fashion, while the cover 24 cooperates with the rear portion of the motor. In particular, Avidano states “The portion of the rear body 40 facing the cover 24 of the stator is conveniently provided with at least one projection 45 in contact with this cover for the purpose of reducing or cancelling the effects of vibration.” (Column 3, Lines 52-55) In regards to dependent **Claims 6-10**, it can be seen in Figure 3 that a blind hole, which surrounds and holds the rear portion of the electric motor, is formed between the annular separator element 32 and the cover 24. This opening (or hole) is attached to the rear part of the motor by tight fitting, and forms a plate around the rear portion of the motor. Regarding dependent **Claims 11-14**, the annular separator element 32 forms a surface opposite the bottom of the hub (i.e. bowl) that directs airflow from the inside of the hub to the outside of the hub (See Figure 3). Moreover, the separator has a concave shape (a quarter of a circle) that is flat, extends discontinuously (as its contour changes), and

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extends substantially linearly at a portion thereof. Finally, in regards to dependent **Claims 16-18**, Avidano's fan contains a peripheral part 44 that forms a frame with the central part. Moreover, Avidano's fan is for use in both an engine cooling device, as well as a motor vehicle. In particular, Avidano states "The rear body 40 may advantageously be formed integrally with a support structure to which the motor-driven fan 1 is fixed and defining a passage 46 for conveying the air stream caused in operation by the main blades 28 of the fan. In this case the aspiration duct 44 can be formed at least partly in a spoke of this support and conveying structure. In the case of a motor-driven fan associated with a radiator R the inlet aperture of the aspiration duct 44 is conveniently situated outside the boundary of this radiator R." (Column 3, Lines 59-67)

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following selected patents and technical literature is cited to further show the state of the art in ventilation fans and related technology in general where the not all obvious salient features of the patents are disclosed as follows:

- US Patent Application Publication No 2002/0187059 to Gold et al.  
discloses an electric fan unit that is designed to provide a cooling airflow to the motor

- US Patent No. 5,236,306 to Hozak discloses an axial blower that is designed to provide a cooling airflow to the electric motor

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER B. COMLEY whose telephone number is (571)270-3772. The examiner can normally be reached on M-F 7:30am - 5:00am EST (Alternate Fridays Off). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon C. Kramer can be reached on (571)-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander B Comley/  
Examiner, Art Unit 3746

/Devon C Kramer/  
Supervisory Patent Examiner, Art  
Unit 3746

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